

After
Final**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A bale kicker assembly for a round baler having a bale-forming chamber and a tailgate movable between a closed position during formation of the bale within the bale-forming chamber and an open position for discharging the bale from the bale-forming chamber, comprising:

5 an inner kicker section located below of the bale-forming chamber, wherein the inner kicker section defines an inner end and an outer end, wherein the inner end of the inner kicker section is pivotably mounted to the baler and wherein the inner kicker section is movable between a lowered discharge position and a raised position, and wherein movement of the inner kicker section between the lowered discharge position
10 and the raised position moves the outer end of the inner kicker section vertically between a lowered position and a raised position;

 an outer kicker section having an inner end pivotably mounted to the outer end of the inner kicker section and an outer end spaced rearwardly therefrom, wherein the outer kicker section is adapted to engage the ground when the inner kicker section is in its
15 lowered position, and is raised above the ground when the inner kicker section is in its raised position; and

 a lifting and lowering arrangement interconnected with the inner kicker section for moving the inner kicker section between its raised and lowered positions;

 wherein, when the inner kicker section is in its lowered position and the
20 outer end of the outer kicker section is engaged with the ground, a bale discharged from the bale-forming chamber is received by the inner kicker section and moves away from the bale-forming chamber on the inner kicker section and the outer kicker section and, when the inner kicker section is moved to its raised position from its lowered position,

the bale is moved off the outer kicker section and the outer end of the outer kicker section
25 is positioned so as to prevent the bale from rolling toward the baler.

2. (Currently Amended) The bale kicker assembly of claim 1, wherein the inner end of the outer kicker section is pivotably mounted to the outer end of the inner kicker section for movement about a substantially horizontal pivot axis.

3. (Currently Amended) ~~The bale kicker assembly of claim 2, further comprising~~ A bale kicker assembly for a round baler having a bale-forming chamber and a tailgate movable between a closed position during formation of the bale within the bale-forming chamber and an open position for discharging the bale from the bale-forming chamber, comprising:
5 chamber, comprising:

an inner kicker section located below of the bale-forming chamber, wherein the inner kicker section is movable between a lowered discharge position and a raised position;

an outer kicker section having an inner end pivotably mounted to the inner
10 kicker section and an outer end spaced rearwardly therefrom, wherein the outer kicker section is adapted to engage the ground when the inner kicker section is in its lowered position, and is raised above the ground when the inner kicker section is in its raised position, wherein the inner end of the outer kicker section is pivotably mounted to the inner kicker section for movement about a substantially horizontal pivot axis;

15 a lifting and lowering arrangement interconnected with the inner kicker section for moving the inner kicker section between its raised and lowered positions;

wherein, when the inner kicker section is in its lowered position and the outer end of the outer kicker section is engaged with the ground, a bale discharged from the bale-forming chamber is received by the inner kicker section and moves away from
20 the bale-forming chamber on the inner kicker section and the outer kicker section and, when the inner kicker section is moved to its raised position from its lowered position, the bale is moved off the outer kicker section and the outer end of the outer kicker section is positioned so as to prevent the bale from rolling toward the baler; and

_____ a stop arrangement interposed between the outer kicker section and the outer end of the inner kicker section for lifting the outer kicker section upon movement of the inner kicker section to its raised position.

4. (Original) The bale kicker assembly of claim 3, wherein the stop arrangement comprises a stop member secured to the inner end of the outer kicker section and a stop surface on the inner kicker section, wherein the stop member and stop surface are configured to maintain the outer end of the outer kicker section in engagement with the ground during initial movement of the inner kicker section from its lowered position toward its raised position, and thereafter engage each other to lift the outer end of the outer kicker section above the ground so as to move the bale off the outer kicker section, wherein the outer end of the outer kicker section engages the bale after movement of the bale off the outer kicker section to prevent the bale from rolling toward the baler.

5. (Original) The bale kicker assembly of claim 2, further comprising a transport latch member interconnected with the tailgate and engageable with the outer kicker section for maintaining the outer kicker section above the ground when the baler is not in use.

6. (Currently Amended) ~~The bale kicker assembly of claim 5~~ A bale kicker assembly for a round baler having a bale-forming chamber and a tailgate movable between a closed position during formation of the bale within the bale-forming chamber and an open position for discharging the bale from the bale-forming chamber,
5 comprising:
an inner kicker section located below of the bale-forming chamber, wherein the inner kicker section is movable between a lowered discharge position and a raised position;
an outer kicker section having an inner end pivotably mounted to the inner
10 kicker section and an outer end spaced rearwardly therefrom, wherein the outer kicker section is adapted to engage the ground when the inner kicker section is in its lowered position, and is raised above the ground when the inner kicker section is in its raised

position, wherein the inner end of the outer kicker section is pivotably mounted to the inner kicker section for movement about a substantially horizontal pivot axis;

15 a lifting and lowering arrangement interconnected with the inner kicker section for moving the inner kicker section between its raised and lowered positions;

wherein, when the inner kicker section is in its lowered position and the outer end of the outer kicker section is engaged with the ground, a bale discharged from the bale-forming chamber is received by the inner kicker section and moves away from the bale-forming chamber on the inner kicker section and the outer kicker section and,
20 when the inner kicker section is moved to its raised position from its lowered position, the bale is moved off the outer kicker section and the outer end of the outer kicker section is positioned so as to prevent the bale from rolling toward the baler; and

a transport latch member interconnected with the tailgate and engageable
25 with the outer kicker section for maintaining the outer kicker section above the ground when the baler is not in use, wherein the transport latch member comprises a hook member engageable with the outer kicker section, and wherein the outer kicker section and the hook member are configured such that movement of the tailgate to its open position causes the hook member to move along the outer kicker section such that the
30 hook member moves out of engagement with the outer kicker section so as to allow movement of the outer kicker section.

7. (Currently Amended) The bale kicker assembly of claim 2, wherein the inner end of the inner kicker section is mounted to the baler for pivoting movement about a substantially horizontal pivot axis between its raised and lowered positions.

8. (Original) The bale kicker assembly of claim 7, wherein the lifting and lowering arrangement comprises a cylinder assembly interconnected with the inner kicker section, wherein the cylinder assembly includes an extendible and retractable member operable to cause movement of the inner kicker section between its lowered and raised
5 positions

9. (Currently Amended) A round baler, comprising:

a bale-forming chamber defined by a series of side-by-side baler belts;

a tailgate with which the baler belts are engaged, wherein the tailgate is movable between a closed position during bale formation and an open position for

5 discharging the bale rearwardly from the bale-forming chamber; and

a bale kicker for facilitating movement of the bale onto the ground when the tailgate is in its open position and the bale is discharged from the bale-forming chamber, comprising an inner section located below of the bale-forming chamber,

wherein the inner section defines an inner end and an outer end and, wherein the inner

10 end of the inner section is pivotably mounted to the baler for movement is moveable
between a raised retaining position and a lowered discharge position, wherein the outer
end of the inner section is moveable vertically between a raised position and a lowered
position during movement of the inner section between the raised retaining position and
the lowered discharge position, and an outer section movably mounted to the outer end of
15 the inner section, wherein the outer section is configured to engage the ground when the
inner section is in its lowered position to facilitate movement of the bale onto the ground,
and is configured to engage the bale when the inner section is moved to its raised
retaining position to prevent movement of the bale toward the baler during movement of
the tailgate from its open position toward its closed position.

10. (Currently Amended) The round baler of claim 9, wherein the outer section of the bale kicker is movably mounted to the outer end of the inner section by means of a pivot connection interposed between the outer end of the inner section of the bale kicker and an inner end defined by the outer section of the bale kicker.

11. (Original) The round baler of claim 10, wherein the pivot connection enables the outer section of the bale kicker to pivot freely relative to the inner section when the inner section is moved to its lowered discharge position, in response to engagement of an outer end defined by the outer section with the ground, and further
5 comprising a stop arrangement interposed between the inner section and the outer section

of the bale kicker for lifting the outer section upwardly when the inner section is moved from its lowered discharge position to its raised retaining position.

12. (Currently Amended) ~~The round baler of claim 11,~~ A round baler,
comprising:

a bale-forming chamber defined by a series of side-by-side baler belts;

a tailgate with which the baler belts are engaged, wherein the tailgate is
5 movable between a closed position during bale formation and an open position for
discharging the bale rearwardly from the bale-forming chamber; and

a bale kicker for facilitating movement of the bale onto the ground when
the tailgate is in its open position and the bale is discharged from the bale-forming
chamber, comprising an inner section located below of the bale-forming chamber,
10 wherein the inner section is movable between a raised retaining position and a lowered
discharge position, and an outer section movably mounted to the inner section, wherein
the outer section is configured to engage the ground when the inner section is in its
lowered position to facilitate movement of the bale onto the ground, and is configured to
engage the bale when the inner section is moved to its raised retaining position to prevent
15 movement of the bale toward the baler during movement of the tailgate from its open
position toward its closed position;

wherein the outer section of the bale kicker is movably mounted to the
inner section by means of a pivot connection interposed between the inner section of the
bale kicker and an inner end defined by the outer section of the bale kicker, wherein the
20 pivot connection enables the outer section of the bale kicker to pivot freely relative to the
inner section when the inner section is moved to its lowered discharge position, in
response to engagement of an outer end defined by the outer section with the ground; and

a stop arrangement interposed between the inner section and the outer
section of the bale kicker for lifting the outer section upwardly when the inner section is
25 moved from its lowered discharge position to its raised retaining position, wherein the
stop arrangement is configured so as to lift the outer end of the outer section upwardly

when the inner section attains a predetermined position during movement from its lowered discharge position toward its raised retaining position, to move the bale off the outer section of the bale kicker, and to maintain the outer end of the outer section at an elevation above the ground sufficient to prevent the bale from rolling on the ground toward the baler when the inner section of the bale kicker is in its raised retaining position.

13. (Original) The round baler of claim 9, further comprising a sensor arrangement for detecting the presence of a bale on the bale kicker when the tailgate is in its open position, and for preventing movement of the tailgate from its open position toward its closed position when the bale is located in a predetermined position on the bale kicker.

14. (Original) The round baler of claim 13, wherein the tailgate is movable between its open and closed positions by means of one or more tailgate cylinder assemblies which are extendible and retractable so as to move the tailgate between its open and closed positions, wherein the sensor arrangement interacts with a pressurized fluid circuit in which the tailgate cylinder assemblies are arranged, so as to prevent operation of the tailgate cylinder assemblies to move the tailgate to its closed position from its open position.

15. (Currently Amended) ~~The round baler of claim 14~~ A round baler, comprising:
a bale-forming chamber defined by a series of side-by-side baler belts;
a tailgate with which the baler belts are engaged, wherein the tailgate is
movable between a closed position during bale formation and an open position for
discharging the bale rearwardly from the bale-forming chamber; and
a bale kicker for facilitating movement of the bale onto the ground when
the tailgate is in its open position and the bale is discharged from the bale-forming
chamber, comprising an inner section located below of the bale-forming
wherein the inner section is movable between a raised retaining position and a lowered

discharge position, and an outer section movably mounted to the inner section, wherein the outer section is configured to engage the ground when the inner section is in its lowered position to facilitate movement of the bale onto the ground, and is configured to engage the bale when the inner section is moved to its raised retaining position to prevent movement of the bale toward the baler during movement of the tailgate from its open position toward its closed position; and

a sensor arrangement for detecting the presence of a bale on the bale kicker when the tailgate is in its open position, and for preventing movement of the tailgate from its open position toward its closed position when the bale is located in a predetermined position on the bale kicker, wherein the tailgate is movable between its open and closed positions by means of one or more tailgate cylinder assemblies which are extendible and retractable so as to move the tailgate between its open and closed positions, wherein the sensor arrangement interacts with a pressurized fluid circuit in which the tailgate cylinder assemblies are arranged, so as to prevent operation of the tailgate cylinder assemblies to move the tailgate to its closed position from its open position, wherein the sensor arrangement includes a pivotable arm movable between a first position when engaged with a bale in a predetermined location on the bale kicker, and a second position when the bale is moved outwardly past the predetermined location on the bale kicker, wherein the arm is interconnected with a valve actuator, wherein the valve actuator is movable from an operative position in which the valve actuator actuates a valve in the pressurized fluid circuit when the inner section of the bale kicker is moved from its lowered discharge position to its raised retaining position and the arm is in its first position, and is movable to a disengaged position in which the valve actuator fails to actuate the valve when the inner section of the bale kicker is moved from its lowered discharge position to its raised retaining position, wherein failure to actuate the valve prevents operation of the tailgate cylinder assemblies so as to prevent movement of the tailgate from its open position toward its closed position.

16. (Original) The round baler of claim 10, further comprising a transport latch arrangement interposed between the tailgate and the outer section of the bale kicker, wherein the transport latch arrangement is operable to maintain the outer section of the bale kicker in an elevated position when the round baler is not in use.

17. (Currently Amended) ~~The round baler of claim 16~~ A round baler, comprising:

a bale-forming chamber defined by a series of side-by-side baler belts;

a tailgate with which the baler belts are engaged, wherein the tailgate is
5 movable between a closed position during bale formation and an open position for
discharging the bale rearwardly from the bale-forming chamber; and

a bale kicker for facilitating movement of the bale onto the ground when
the tailgate is in its open position and the bale is discharged from the bale-forming
chamber, comprising an inner section located below of the bale-forming chamber,
10 wherein the inner section is movable between a raised retaining position and a lowered
discharge position, and an outer section movably mounted to the inner section, wherein
the outer section is configured to engage the ground when the inner section is in its
lowered position to facilitate movement of the bale onto the ground, and is configured to
engage the bale when the inner section is moved to its raised retaining position to prevent
15 movement of the bale toward the baler during movement of the tailgate from its open
position toward its closed position, wherein the outer section of the bale kicker is
movably mounted to the inner section by means of a pivot connection interposed between
the inner section of the bale kicker and an inner end defined by the outer section of the
20 bale kicker; and

a transport latch arrangement interposed between the tailgate and the outer
section of the bale kicker, wherein the transport latch arrangement is operable to maintain
the outer section of the bale kicker in an elevated position when the round baler is not in
use, wherein the transport latch arrangement comprises a depending latch member
extending downwardly from the tailgate and engaged with the outer section of the bale

- 25 kicker, and wherein the latch member is adapted to move along the outer section of the bale kicker during movement of the tailgate from its closed position toward its open position, and wherein the latch member and the outer section of the bale kicker are configured so as to enable the latch member to move out of engagement with the outer section of the bale kicker when the tailgate is moved to its open position.

18. (Currently Amended) A method of discharging a round bale from the bale-forming chamber of a round baler, wherein the round baler includes a tailgate movable between a closed position during bale formation and an open position for discharging the bale from the bale-forming chamber, comprising the steps of:

- 5 positioning a movable bale kicker rearwardly of the bale-forming chamber, wherein the bale kicker includes an inner section movable between a raised and lowered position and an outer section pivotably mounted to the inner section, wherein the inner section includes an inner end pivotably mounted to the baler for movement between the raised and lowered positions, and wherein the outer section is pivotably mounted to the
- 10 outer end of the inner section, wherein movement of the inner section between the raised and lowered positions moves the outer end of the inner section vertically between a raised position and a lowered position;

- moving the bale kicker inner section to its lowered position so as to receive a bale discharged from the bale-forming chamber, wherein movement of the bale kicker
- 15 inner section to its lowered position moves the outer end of the inner section to the lowered position and causes at least an outer end defined by the bale kicker outer section to engage the ground, wherein the bale is adapted to travel from the bale kicker inner section onto the bale kicker outer section when the inner section is in its lowered position;

- 20 subsequently moving the bale kicker inner section toward its raised position, wherein the bale kicker outer section is adapted to move upwardly during movement of the inner end of the bale kicker inner section from its lowered position toward its raised position, wherein upward movement of the bale kicker outer section

25 results in the outer end of the bale kicker outer section being raised off the ground so as to move the bale off the bale kicker outer section and to engage the outer end of the bale kicker outer section with the bale and to thereby prevent movement of the bale toward the baler.

19. (Original) The method of claim 18, further comprising the step of moving the tailgate from its open position to its closed position after movement of the bale kicker inner section from its lowered position to its raised position.

20. (Currently Amended) The method of claim 19, further comprising the step of preventing movement of the tailgate from its open position to its closed position in the event the bale has not moved past a predetermined position on the bale kicker when the bale kicker inner section has been moved to its raised position.

21. (Original) The method of claim 20, wherein the step of preventing movement of the tailgate from its open position to its closed position is carried out by sensing the presence of a bale at or inwardly of the predetermined position on the bale kicker, and disabling operation of a pressurized fluid circuit within which one or more
5 tailgate cylinders are connected, wherein the tailgate cylinders are operable to move the tailgate between its open and closed positions.

22. (Currently Cancelled)

23. (Currently Cancelled)

24. (Previously Amended) A bale kicker mechanism for use with a round baler having a bale-forming chamber and a tailgate interconnected with a tailgate operating mechanism which is operable to move the tailgate between a closed position during bale formation and an open position for discharging the bale from the round baler,
5 comprising:

a bale kicker movable between a lowered position when the tailgate is moved to its open position so as to receive the bale discharged from the bale-forming chamber and to facilitate movement of the bale from the bale-forming chamber onto the

ground, and a raised position in which the bale kicker is moved upwardly from its

10 lowered position; and

a sensing arrangement interconnected with the tailgate operating mechanism for sensing the presence of a bale at or inwardly of a predetermined position on the bale kicker, wherein the sensing arrangement functions to prevent operation of the tailgate operating mechanism so as to move the tailgate toward its closed position in the event the bale is located at or inwardly of the predetermined position on the bale kicker;

15 wherein the tailgate operating mechanism comprises one or more extendible and retractable tailgate cylinder assemblies interconnected in a pressurized fluid circuit, and wherein the sensing arrangement interacts with the pressurized fluid circuit so as to prevent operation of the tailgate cylinder assemblies to move the tailgate to its closed position in the event the bale is located at or inwardly of the predetermined position on the bale kicker, and;

wherein the sensing arrangement includes a biased arm member located in the path of movement of the bale as the bale moves on the bale kicker at or inwardly of the predetermined location on the bale kicker, and a valve actuator interconnected with the biased arm member, wherein the valve actuator is in a first position when the biased arm member is not engaged with a bale wherein movement of the bale kicker to its raised position causes the valve actuator to actuate a valve in the pressurized fluid circuit so as to allow operation of the tailgate cylinder assemblies so as to move the tailgate from its open position to its closed position, and wherein the valve actuator is moved to a second position in response to engagement of the biased arm member with a bale wherein, when the valve actuator is in its second position, the valve actuator fails to actuate the valve upon movement of the bale kicker to its raised position, wherein failure to actuate the valve prevents operation of the pressurized fluid circuit to prevent movement of the tailgate cylinder assemblies to move the tailgate toward its closed position.

REMARKS

In the Office Action, claims 1, 2, 7, 9, 10, 11, 13, 18 and 19 were rejected under 35 USC §102(b) as being anticipated by Clostermeyer et al U.S. Patent 4,566,380. Claims 5 and 16 were rejected under 35 USC §103(a) as being unpatentable over Clostermeyer et al in view of Jennings U.S. Patent 4,458,587. Claims 8, 14 and 21 were rejected under 35 USC §103(a) as being unpatentable over Clostermeyer et al in view of Olin U.S. Patent 5,263,410.

Claims 3, 4, 6, 12, 15, 17 and 24 were objected to as being dependent upon a rejected base claim, with an indication that such claims would be allowable if rewritten in independent form including all limitations of the base claim and any intervening claims. By this response, claims 3, 6, 12, 15 and 17 are amended to independent form, in each case incorporating the limitations of the base claim and any intervening claims. In view of the Examiner's indication, it is thus believed that claims 3, 6, 12, 15 and 17 are in allowable form, along with dependent claim 4. Claim 24 was amended to independent form in the response filed November 26, 2003. The Examiner's indication of allowable subject matter in claim 24 is interpreted to indicate allowance of claim 24.

The remaining claims have been amended in a manner believed to clearly and patentably define over the references.

The Examiner states that Clostermeyer et al discloses a bale kicker assembly which includes an inner kicker 19 and an outer kicker 16, in combination with a lifting and lowering arrangement 22, 24, 25 and 26. Applicants note with appreciation the Examiner's explanations as to applicability of the Clostermeyer et al reference to the claimed subject matter.

In Clostermeyer et al, reference character 16 denotes an outer rod that is rotatably supported on a pin 17, to provide an inclined discharge path for bales 15 (column 3, lines 27-29). Pin 17 is connected to a fixed carrier profile 18. A lever 19 is welded to rod 16 (column 3, lines 31-33). With this construction, outer rod 16 is rotatably supported at pin 17, and lever 19 is welded to rod 16 so that both rod 16 and

lever 19 rotate about pin 17. Thus, there is a fixed angular relationship between lever 19 and rod 16.

In direct contrast, the present invention contemplates a kicker 30 having pivotably interconnected inner and outer sections 32, 34, respectively. Inner section 32 is pivotably mounted to the baler at pivot tube 38. Inner section 32 defines an inner end pivotably mounted to pivot tube 38, and an outer end that moves vertically between a raised position as shown in Fig. 4a and a lowered position as shown in Fig. 4b, in response to operation of the lifting and lowering arrangement. Furthermore, outer section 34 of kicker 30 is pivotably mounted to the outer end of inner section 32. With this construction, the kicker of the present invention has a jointed construction, defined by the pivotable interconnection between the inner and outer sections.

The remaining independent claims of this application have been amended to emphasize this feature. Specifically, claim 1 is amended to state that the inner kicker section defines an inner end and an outer end. The inner end of the inner kicker section is defined as being pivotably mounted to the baler. Claim 1 further states that the inner kicker section is movable between a lowered discharge position and a raised position. Claim 1 is amended to state that movement of the inner kicker section between the lowered discharge position and the raised position moves the outer end of the inner kicker section vertically between a lowered position and a raised position. Claim 1 further states that the outer kicker section has an inner end that is pivotably mounted to the outer end of the inner kicker section, and an outer end spaced rearwardly therefrom.

The Clostermeyer et al reference does not show or suggest the subject matter of amended claim 1. As noted above, Clostermeyer et al shows lever 19 and rod 16 secured together in a fixed angular relationship and pivotably mounted to the baler at pin 17. In Clostermeyer et al, the inner end of the lever 19 is not pivotably interconnected with the baler, as set forth in claim 1, but rather is interconnected with switching rod 20. Further, the outer end of lever 19 is fixed to the inner end of rod 16, and is not vertically movable between raised and lowered positions, as claimed. Finally,

the inner end of rod 16 is connected to lever 19 in a fixed angular relationship, and is not pivotably mounted to the outer end of an inner kicker section, as claimed.

For the above reasons, claim 1 is believed to patentably define over the Clostermeyer et al reference. A review of the remaining references of record similarly fails to show or suggest the claimed subject matter, and accordingly claim 1 is believed allowable.


Claims 2, 5, 7 and 8 depend directly or indirectly from claim 1, and are believed allowable for the above reasons as well as in view of the subject matter of each claim.

Independent claims 9 and 18 are amended to incorporate limitations similar to those added to amended claim 1. Accordingly, claims 9 and 18 are thus also believed allowable, along with dependent claims 10, 11, 13, 14, and 16 (which depend from claim 9) and dependent claims 19-21 (which depend from claim 18).

This response places all of the pending claims into condition for allowance, and does not require further consideration and/or search. Accordingly, entry of this amendment is respectfully requested, along with issuance of a Notice of Allowance.

The Examiner is encouraged to contact the undersigned by phone if questions remain after consideration of this response, or if such would otherwise facilitate prosecution.

Respectfully submitted,

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